

PATENT

Amendments to the Claims

Following is a complete set of claims as amended with this Response. This complete set of claims includes amended claims 1-5, 7-9, and 21-24.

1. (Currently Amended) A method for detecting an evoked response in a cardiac stimulation device implanted in a patient, the device having an evoked response detection algorithm, the method comprising:

- receiving one or more signals from a position sensor;
- processing the one or more signals to determine ~~a patient state~~ an orientation of the patient; and
- modifying the evoked response detection algorithm based on the detected ~~patient state~~ orientation of the patient.

2. (Currently Amended) The method of claim 1, wherein the evoked response detection algorithm is modified by calibrating the algorithm using one or more parameter values pertaining to the detected ~~patient state~~ orientation of the patient.

3. (Currently Amended) The method of claim 1, wherein the evoked response detection algorithm is modified by selecting one or more parameter values based on the detected ~~patient state~~ orientation of the patient.

4. (Currently Amended) The method of claim 2, further comprising:
- providing a first set of parameter values that correspond with a first ~~patient state~~ orientation of the patient;
 - providing a second set of parameter values that correspond with a second ~~patient state~~ orientation of the patient; and
 - modifying the set of parameter values to the first set or the second set based on the detected ~~patient state~~ orientation of the patient.

PATENT

5. (Currently Amended) The method of claim 1, further comprising:
disabling an automatic capture detection function if the ~~patient state~~
orientation of the patient is unstable.
6. (Cancelled)
7. (Currently Amended) An implantable cardiac device comprising:
a memory configured to store plural sets of parameter values
corresponding to various patient states;
a sensor that is operative to generate one or more signals indicative of a
patient state; and
a controller that is operative to receive the one or more signals from the
sensor, process the one or more signals to determine the patient state, and use
the corresponding set of parameter values to process sensed electrical activity;
wherein the controller is configured to modify ~~the~~ an evoked response
detection algorithm by:
retrieving a position set comprising a plurality of parameter values
pertaining to the orientation of the patient; and
calibrating the evoked response detection algorithm using the position set
of parameter values.
8. (Currently Amended) The system of claim 7, wherein the controller is
configured to calibrate ~~an~~ the evoked response detection algorithm by:
replacing the position set of parameter values with a new position set of
parameter values in the evoked response detection algorithm; and
employing the new operating set in the evoked response detection
algorithm.

PATENT

9. (Currently Amended) The system of claim 7, wherein the ~~control circuitry~~
controller is further configured to:

establish a first setting for the position set of parameter values when the
patient is vertically oriented;

establish a second setting for the position set of parameter values when
the patient is horizontally oriented; and

modify the set of parameter values to the first setting or the second setting
based on the orientation of the patient.

10. (Previously Presented) An implantable cardiac device comprising:

a memory configured to store plural sets of parameter values
corresponding to various patient states;

a sensor that is operative to generate one or more signals indicative of a
patient state; and

a controller that is operative to receive the one or more signals from the
sensor, process the one or more signals to determine the patient state, and use
the corresponding set of parameter values to process sensed electrical activity;

wherein the controller is further configured to disable an automatic capture
detection function to prevent false loss of capture detection when the signal
indicates that an orientation of the patient is changing.

11. (Cancelled)

PATENT

12. (Previously Presented) A method for modifying a detection algorithm implemented by an implantable stimulation device, comprising:
receiving one or more signals indicative of a patient state;
processing the one or more signals to determine the patient state; and
modifying the detection algorithm based on the determined patient state;
wherein receiving one or more signals comprises receiving one or more position signals.

13. (Previously Presented) The method of claim 12, wherein receiving one or more signals comprises receiving one or more activity signals.

14. (Previously Presented) A method for modifying a detection algorithm implemented by an implantable stimulation device, comprising:
receiving one or more signals indicative of a patient state;
processing the one or more signals to determine the patient state; and
modifying the detection algorithm based on the determined patient state;
wherein receiving one or more signals comprises receiving one or more position signals and one or more activity signals.

15. (Previously Presented) The method of claim 14, further comprising providing plural sets of parameter values corresponding to various patient states, and wherein modifying the detection algorithm further comprises using the corresponding set of parameter values based on the determined patient state.

16. (Cancelled)

PATENT

17. (Previously Presented) An implantable cardiac device comprising:
a sensor that is operative to generate one or more signals indicative of a patient state; and
a controller that is in communication with the sensor, the controller being programmed to apply a detection algorithm to received electrical activity signals, wherein the controller is operative to receive the one or more signals from the sensor, process the one or more signals to determine the patient state, and adjust one or more parameter values of the detection algorithm based on the determined patient state;
wherein the sensor comprises a position sensor.

18. (Previously Presented) The implantable cardiac device of claim 17, wherein the sensor comprises an activity sensor.

19. (Previously Presented) An implantable cardiac device comprising:
a sensor that is operative to generate one or more signals indicative of a patient state; and
a controller that is in communication with the sensor, the controller being programmed to apply a detection algorithm to received electrical activity signals, wherein the controller is operative to receive the one or more signals from the sensor, process the one or more signals to determine the patient state, and adjust one or more parameter values of the detection algorithm based on the determined patient state;
wherein the sensor comprises a position sensor, and further comprising an activity sensor that is operative to generate one or more signals indicative of an activity level of the patient.

PATENT

20. (Previously Presented) The implantable cardiac device of claim 19, wherein the controller is operative to maintain a plurality of sets of parameter values corresponding to the respective patient states, and wherein the controller adjusts the detection algorithm by using one of the sets of parameter values based on the detected patient state.

21. (Currently Amended) An implantable cardiac device comprising:
~~an evoked response detection algorithm~~ a computer readable medium encoded with an evoked response detection algorithm;
a position sensor to generate one or more position signals indicative of a ~~patient state~~ an orientation of a patient; and
a controller to receive the one or more position signals from the position sensor, to process the one or more position signals to determine the ~~patient state~~ orientation of the patient, and to modify the evoked response detection algorithm computer based on the detected ~~patient state~~ orientation of the patient.

22. (Currently Amended) The implantable cardiac device of claim 21, wherein the evoked response detection algorithm is modified by calibrating the algorithm using one or more parameter values pertaining to the detected ~~patient state~~ orientation of the patient.

23. (Currently Amended) The implantable cardiac device of claim 21, wherein the evoked response detection algorithm is modified by selecting one or more parameter values based on the detected ~~patient state~~ orientation of the patient.

PATENT

24. (Currently Amended) The implantable cardiac device of claim 22, further comprising:

a first set of parameter values that correspond with a first ~~patient state~~ orientation of the patient; and

a second set of parameter values that correspond with a second ~~patient state~~ orientation of the patient; and

wherein the set of parameter values is modified to the first set or the second set based on the detected ~~patient state~~ orientation of the patient.